



**STATE OF MONTANA
MONTANA DEPARTMENT OF TRANSPORTATION
JOB PROFILE**

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Update

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Formal Review

Date Submitted _____

SECTION I - Identification

Working Title: Drafter - Temporary

Department: Transportation

Job Code Number: 173133

**Division & Bureau: Engineering Division
/Traffic and Safety Bureau**

Job Code Title: Design Technician

Section & Unit: Safety Engineering

Pay Band: 3

**Work Address: 2701 Prospect Avenue;
Helena, MT 59620-1001**

Position Number: 96070

Phone: (406) 444-6472

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FLSA Exempt

☒

FLSA Non-Exempt

☐

Non-Union

☒

MPEA

☐

Blue Collar

Profile Completed By: Kraig McLeod

Work Phone: (406) 444-6256

Work Unit Mission Statement or Functional Description:

The Engineering Division prepares projects for bidding and coordinates highway construction. The Division is made up of Preconstruction and Construction, Engineering Management, Research and five District Offices in Missoula, Butte, Great Falls, Glendive, and Billings for budget and workforce purposes. Preconstruction functions are administered by the Highways, Right of Way, Bridge, Environmental, Consultant Design, and Traffic and Safety Bureaus; and the Engineering Information Services Section.

The Safety Engineering Section within the Traffic and Safety Bureau is responsible for the Highway Safety Improvement Program (HSIP) and the High Risk Rural Roads Programs (HRRR), established by Congress under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. For these programs, Safety Engineering staff maintains, coordinates and uses a variety of data bases to identify and analyze high crash locations. Following crash causation determinations, staff evaluates feasible countermeasures to identified crash trends. The Section develops conceptual and pre-design plans, ranks projects on the basis of benefit/cost calculations and establishes a yearly list of

safety improvements. The Section is responsible for the development of plans and specifications for safety projects. The Section writes a yearly program summary, mandated by the Federal Highway Administration.

Safety Engineering staff perform safety reviews for roadway projects, design exceptions, bridge projects, planning projects and other Departments' needs. The Section identifies crash trends, significant variances from statewide crash trends, documents crash clusters and recommends safety measures, commensurate with the scope of the project.

Safety Engineering staff coordinates, documents and administers corridor safety audits, a multi-disciplinary team approach to analyze roadway corridors and make recommendations for safety and traffic operation improvements. The Section provides support for the Comprehensive Highway Safety Plan. The Section provides crash analyses in construction zones and participates in the Work Zone Safety Committee and chairs the liaison meetings between the Montana Highway Patrol, the Federal Highway Administration and the Department of Transportation.

The Section reviews documents, reports and provides crash data and safety information to numerous customers including in-house staff, public requests, reporters, and consultants. Staff participates in research projects, provides safety data, analysis and expertise.

Describe the Job's Overall Purpose:

The general purpose of this position is to assist the Safety Engineering Section in the overall goal of reducing the severity and number of traffic crashes in Montana. The duties of this position consist primarily of gathering records, data, and plans and preparing collisions diagrams using Microstation or ArcGIS.

SECTION II - Major Duties or Responsibilities

This section should be a clear concise statement of the position's major duties and the approximate percent of work time for each duty

% of Time

- | | |
|-----|--|
| 40% | Retrieve accident records from PC network digital images or from Department of Justice network. |
| 50% | Retrieve highway plans and draft collision diagrams at specific intersections or road segments using CAD computer-aided drafting and/or GIS spatial software (ArcGIS). |
| 5% | Compute percentages of accident types according to various attributes and do other mathematical operations as needed. |
| 5% | Assists with the preparation of plans for safety improvements and performs related work in the Traffic and Safety Bureau as required. |

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1. ***The following duties and/or specific tasks listed under section II above are considered "essential functions" because they require specialized expertise and skill and are the primary reasons the job exists (they must be performed by this position with or without accommodations):***

All duties in section two (II) are considered essential functions.

The following mental and physical demands are associated with these essential functions:

PHYSICAL

- Work is performed in a controlled, comfortable office setting.
- Lifting objects (such as files or as-built plans) up to 20 pounds.
- Remaining seated for extended periods of time, with occasional walking, standing, and bending.
- Occasional field work with potential overnight stays. Travel and surveys occasionally under bad weather, poor roadway conditions.
- Lifting documentation files or plans and filing correspondence in files.

MENTAL

- Strong mental capabilities and ability to perform work with varying deadlines and complexity.
- Flexibility to address rush work assignments.
- Ability to multi-task.
- Operate a computer, calculator, and other office equipment.
- Demands for accuracy in all aspects of work
- Ability to meet deadlines.
- Comparing data.
- Copying or transcribing data.
- Compiling information and organizing it into a logical format.
- Communicating effectively in both oral and written communications.

2. ***Does this position supervise others?*** ☐ Yes ☒ No

Number directly supervised: None

Position Number(s) of those supervised: N/A

3. ***Attach an Organizational Chart.***

SECTION III - Minimum Qualifications - List minimum requirements for the first day of work.

Critical knowledge and skills required for this position:**KNOWLEDGE:**

This position requires knowledge of the principles and methods of GIS data mapping and manipulation; familiarity with highway plans; computer aided drafting techniques and equipment; as well as mathematics. High school graduate with one year of experience in drafting, including CAD computer-aided drafting and/or GIS Mapping is required.

SKILLS:

Skill in the use of engineering office instruments and computers as well as CADD and GIS software.

Behaviors required to perform these duties:

See MDT Core Behaviors

Education:

Check the one box indicating minimum education requirements for this position for a new employee the first day of work:

- | | |
|--|--|
| <input type="checkbox"/> No education required | <input type="checkbox"/> Related AAS/2-years college/vocational training |
| <input type="checkbox"/> High school diploma or equivalent | <input type="checkbox"/> Related Bachelor's Degree |
| <input checked="" type="checkbox"/> 1-year related college/voc. training | <input type="checkbox"/> Related Master's degree |

Please specify the acceptable fields of study:

Acceptable: High school graduate with one year of experience in data collection, graphical presentation of data, and mathematical computations with data is required. Related post-secondary course work may substitute for experience.

Other education, training, certification, or licensing required (specify):**Experience:**

Check the one box indicating minimum work-related experience requirements for this position for a new employee the first day of work:

- | | |
|---|--|
| <input type="checkbox"/> No prior experience required | <input type="checkbox"/> 3 years |
| <input checked="" type="checkbox"/> 1 year | <input type="checkbox"/> 4 years |
| <input type="checkbox"/> 2 years | <input type="checkbox"/> 5 or more years |

Other specific experience (optional):

Alternative Qualifications:

This agency will accept alternative methods of obtaining necessary qualifications.

☒ Yes ☐ No

Alternative qualifications include: The minimum amount of job-related work experience is one year. This can be obtained by a combination of education or experience in drafting and/or GIS mapping.

SECTION IV – Other Important Job Information

☐ Fingerprint check

☒ Valid driver's license

☐ Background check

☐ Other; Describe

The ability to travel throughout the State for work, including occasional stays overnight.

SECTION V – Signatures

Signature indicates this statement is accurate and complete.

Employee:

Name: _____ Title: _____

Signature: _____ Date: _____

Immediate Supervisor:

Name: Kraig McLeod Title: Safety Engineer

Signature: _____ Date: _____

Bureau Chief:

Name: Roy Peterson Title: Traffic and Safety Engineer

Signature: _____ Date: _____

Division/District Administrator:

Name: _____ Title: _____

Signature: _____ Date: _____

Department Designee:

Designee

Chief Human Resources Officer
Human Resources Division

Signature: _____ Date: _____